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| 10 031,766 | 01 23 2002 | Roland Treutlein | WET 0106 PUS | 8455 |
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| Robert P Renke Artz & Artz 28333 Telegraph Road Suite 250 Southfield, MI 48034 | | | EXAMINER NGUYEN, CHAU N | |
| | | | ART UNIT 2831 | PAPER NUMBER S |
| | | | DATE MAILED: 01 24 2003 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/031,766 | TREUTLEIN ET AL. |
| | Examiner Chau N Nguyen | Art Unit 2831 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 December 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 25,26 and 28-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 25,26 and 28-45 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 25 is objected to because of the following informalities: in claim 25, line 3, change "film(s)" to --films--, and line 6, change "fist" to --first--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 25, 26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by JP5-314824 (JP'824).

In this rejection, the citation of "a halogen-free composite film comprising at least two to N sealable, multi-layered laminated films, wherein N is an integer from 3 to 10" is understood as --a halogen-free composite film comprising at least 2 to 3, or 2 to 4, or 2 to 5, or 2 to 6, or 2 to 7, or 2 to 8, or 2 to 9, or 2 to 10 sealable, multi-layered laminated films--

JP'824 discloses a halogen-free composite film comprising at least 2 sealable, multi-layered laminated film, each laminated film comprising a first film (4), a second film (5) and a laminating adhesive (6,7) between the first and second films, the composite film sealingly engaging one side of a functional element (1). JP'824 also discloses the function element being a metallic conductor (re claim 26), and each laminated film being identical to one another (re claim 28).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 29-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hake et al. (5,861,578).

JP'824 discloses the invention as claimed except for the second film of each laminated film comprising a thermally activated substance which can be polyesters (re claims 29 and 34), and the adhesive being polyurethanes (re claims 31 and 32). Hake et al. discloses a cable comprising a laminated structure (16,18,20), wherein the second layer (16) of the laminate comprising polyester and the middle layer of the laminate comprising polyurethane (col. 3, lines 63-67). It would have been obvious to one skilled in the art to use polyesters for the second film and polyurethanes for the adhesive layer of each laminated film of JP'824 since these material are known in the art for being used to cover metallic conductor as taught by Hake et al.

It would also have been obvious to one skilled in the art to use polyamide films for the first and second films of each laminated film of JP'824 since polyamide film is known in the art for being used to cover metallic conductors as taught by Hake et al. (re claim 30).

6. Claims 33, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols (6,071,551).

JP'824 discloses the invention as claimed including claim 37. JP'824 does not disclose the wet application weight of the laminating adhesive being 2 g/m² to 40 g/m² (re claim 33). Hols discloses an invention relating to a laminate structure, wherein a mixture was applied to a base layer in a wet application weight of 5 g/m². It would have been obvious to one skilled in the art to apply the teaching of Hols in the each laminated film of JP'824 to increase the moisture resistance of the laminated film.

Re claim 36, JP'824 discloses an inherent method of making the composite film, comprising applying an adhesive to a first film (4) of a first laminated film, joining the second film (5) to the adhesive to form the first laminated film, thereafter providing a function element between the first film and a second laminated film produced in the same way as the first laminated film. In other words, JP'824 discloses the complex first and second tapes (2) being formed first, then thereafter bonding the tapes on the upper as well as the lower parts of the conductors.

JP'824 does not disclose drying the first film in a drying tunnel at temperatures from about 80 degrees C to 180 degrees C, nor curing the laminating

adhesive. Hols discloses that the adhesive layer was applied to the base layer and then the layer was subjected to a heating temperature of 80 degrees C to dry and cure the adhesive (col. 4, lines 60-63). It would have been obvious to one skilled in the art to dry the adhesive of JP'824 at a temperature of 80 degrees C before applying the second film to cure the adhesive as taught by Hols.

7. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Escallier et al.

Claim 35 additionally recites the first and second films, each having a thickness of 10 μm to 100 μm . Escallier et al. discloses a composite film comprising at least two laminated films, each having a first film and a second film, each having a thickness of from 10 μm to 100 μm . It would have been obvious to one skilled in the art to use the thickness as taught by Escallier for the first and second films of JP'824 to meet the specific use of the resulting composite film since it is well-known in the art that using thinner film would provide a highly flexible composite film.

8. Claims 38, 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols as applied to claim 36 above, and further in view of Hake et al.

The combination of JP'824 and Hols discloses the invention substantially as claimed including the second film being coated with a substance. Hake et al. discloses a cable comprising a laminated structure (16,18,20). Hake et al. discloses that polyurethane (col. 3, lines 63-67) is known in the art for being used to cover metallic conductor. It would have been obvious to one skilled in the art to use polyurethanes for the coating substance of JP'824 since polyurethane is known in the art for being used to cover metallic conductor as taught by Hake et al. (re claim 38 and 42).

It would also have been obvious to one skilled in the art to use polyamide films for the first and second films of each laminated film of JP'824 since polyamide film is known in the art for being used to cover metallic conductors as taught by Hake et al. (re claim 39).

9. Claims 40, 41, and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'824 in view of Hols as applied to claim 36 above and further in view of Escallier et al.

The combination of JP'824 and Hols discloses the invention substantially as claimed including the wet application weight of the laminating adhesive being 2 g/m² to 40 g/m² (re claim 41). The modified JP'824 does not disclose the laminating adhesive being acrylates (re claim 40), nor the first and second films each having a thickness of from 10 µm to 100 µm (re claim 43).

Escallier et al. discloses a composite film comprising acrylates as laminating adhesive and each of the first and second films having a thickness of 10 µm to 100 µm. It would have been obvious to one skilled in the art to use acrylates for the laminating adhesive of JP'824 since acrylates is known for being used in a composite film as taught by Escallier et al. It would also have been obvious to one skilled in the art to use the thickness as taught by Escallier et al. for the first and second films of JP'824 to meet the specific use of the resulting composite film since it is well-known in the art that using thinner film would provide a highly flexible composite film.

Re claims 44 and 45, the modified JP'824 composite film does not disclose a vacuum deposited copper as the functional element. However, it would have been obvious to one skilled in the art to use a vacuum deposited copper layer as the function element in the cable of JP'824 since a cable comprising a vacuum deposited copper layer as the function element is known in the art.

Response to Arguments

10. Applicant's arguments with respect to claims 25 and 36 have been considered but are moot in view of the new ground(s) of rejection except for the following.

In response to applicant's argument that Hake is directed to a conductor coating that is resistant to corona discharge breakdown, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Summary

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen
Primary Examiner
Art Unit 2831

CN
January 14, 2003